

Summary of the TRB Cooperative Research Program

The Transportation Research Board's Cooperative Research Programs are applied, contract research programs that develop near-term, practical solutions to problems facing transportation agencies. Additional information on the Cooperative Research Programs may be found at: <http://www4.nationalacademies.org/trb/crp.nsf/>.

National Cooperative Highway Research Program (NCHRP)

For FY 2006 the program anticipates receiving at least \$33.5 million (less than previously anticipated) and will fund 22 continuing projects and approximately 38 new projects. Project costs range from \$90,000 to \$800,000.

There are several special set aside projects described below.

Project Submission

Problem statements for the NCHRP projects must come from a State DOT, AASHTO committee, or FHWA.

Selection Process

NCHRP projects are selected by the AASHTO Standing Committee on Research with assistance from the AASHTO Research Advisory Committee. Both of these committees are comprised of State DOT members.

Projects are selected with the following criteria:

- Does the proposed topic represents an immediate research need and is of interest to many states?
- Can the topic be handled effectively under in a cooperative program?
- Are similar efforts already underway or are satisfactory answers already available?
- Is there a high probability of resulting with a well-defined, implementable product?

Schedule for FY 2007 Program

- September '05 – Topic submission deadline
- March '06 – Projects selected
- April '06 - Panel nomination request
- June/July '06 - Panels selected
- July to September '06 - First panel meetings

Transit Cooperative Research Program (TCRP)

The FY 2006 program (the first under SAFETEA-LU) received approximately \$9,000,000. Under SAFETEA-LU funding will gradually increase: \$9,300,000 in FY 2007; \$9,600,000 in FY 2008; and \$10,000,000 in FY 2009. With this additional funding, approximately 10-20 new projects will be initiated each year. Project costs range from \$200,000 to \$500,000.

Project Submission

Project statements for TCRP projects may be submitted by anyone or any organization.

Selection Process

Projects are selected by the TCRP Oversight and Project Selection Committee which is composed of transit industry executives.

Projects are selected with the following criteria:

- Does the topic support FTA Strategic Objectives, and the TCRP Strategic Plan?
- Is the topic important to transit agencies?
- Is the topic researchable?
- Is the topic timely?

- Would a successful project produce significant benefits?
- Is probability of success sufficiently high?
- Does the proposed project avoid duplication of completed or ongoing research?
- Is the topic appropriate for TCRP or should it be performed elsewhere?

Schedule for FY 2007 Program

- June '06 - Topic submission deadline
- October '06 - Projects selected
- November '06 - Panel nomination request
- January '07 - Panels selected
- March '07 - First panel meeting

Project 8-36, FY 1999 and continuing - Research for the AASHTO Standing Committee on Planning

This is a quick-response research program for the states to address near-term improvements in statewide and metropolitan transportation planning and project development processes. Ron McCready is the TRB staff for this project (rmccready@nas.edu)

In 2005 this project will likely receive \$600,000 and initiated approximately 10 projects each year. Project costs range from \$25,000 to \$100,000 and timeframe of usually up to 12 months.

Proposed topic should be statewide or MPO

transportation planning, economic planning, financing issues, or intermodal issues. Proposed problem statements discuss the need and application potential for State and MPO practitioners.

Schedule for FY 2007 Program

- April '06 – call for topics issued
- July '06 - Proposed topics due
- August '06 – Projects selected
- September '06 - RFPs Sent to Task Order Contractors and projects are assigned by December
- November '06 - Project begun

Project 25-25, FY 2003 and continuing - Research for the AASHTO Standing Committee on the Environment

This is a quick-response research program established to develop improvements to the analytical methods, decision-support tools, procedures, and techniques employed by practitioners in environmental streamlining, environmental stewardship, statewide and metropolitan environmental transportation planning, program delivery, and project development. Chris Hedges is the TRB staff person for this project (chedges@nas.edu)

In 2006 this project will likely receive \$600,000 and the project initiates approximately 30 projects each year. Project costs range from \$25,000 to \$150,000.

Seven new projects were selected for FY2006:

- Task 25, Modification and Amendment of Environmental Permits on

Design-Build Projects, \$60,000

- Task 26, Integration of Charrette Processes into Project Planning, \$50,000
- Task 27, Project Management and NEPA, \$75,000
- Task 28, Reevaluations of NEPA documents, \$55,000
- Task 29, Best Practices Library from the Environmental Stewardship Practices in Construction and Maintenance Compendium, \$100,000
- Task 30, Section 404 Permitting and Roadside Ditches as Jurisdictional Waters, \$25,000
- Task 31, Cost Effective Tools for Achieving PM 2.5 Transportation Air Quality Conformity, \$75,000

\$165,000 was set aside for additional projects in 2006, including problem statements in the following areas:

- Emerging issues from the SAFETEA-LU legislation
- Priority topics from the current SCOE/ETAP research needs identification process
- Topics that were not covered by the current problem statements, such as water quality, cultural resources, and transportation planning and the NEPA process.

These new statements are due at the end of February. The 25-25 panel will meet March 16, 2006 to review new statements received.

Project 20-7, FY 1969 and Continuing Research for AASHTO Standing Committee on Highways

The American Association of State Highway and Transportation Officials

(AASHTO) Standing Committee on Highways must rule on engineering and operations policies. This quick-response research program helps the committee obtain guidance on a reasonably prompt schedule. Bob Reilly and Crawford Jencks are the TRB staff for this project (cjencks@nas.edu). Suggested topics must come from AASHTO, typically one of the Standing Committee's many subcommittees.

In 2005 this project received \$1 million and the project initiates approximately 10-15 projects each year. Project costs range from \$20,000 to \$100,000.

Project 20-65, FY 2004, Research for the AASHTO Standing Committee on Public Transportation

This is a quick-response research program established to develop improvements to the analytical methods, decision-support tools, and procedures employed by state-DOT practitioners as state involvement in public transportation continues to grow.

Chris Jenks is the TRB staff person for this project (cjenks@nas.edu). In 2003, 2004, and 2005 this project received \$300,000 each year. The project has initiated 12 projects to date. Project costs range from \$20,000 to \$100,000.

Schedule for FY 2007 Program

- March '06 - NCHRP funds allocated
- April/May '06 - Topics solicited
- August '06 - Topic due
- Fall '06 - Projects selected

New Programs

The Second Strategic Highway Research Program (SHRP II)

Authorization

This new program was authorized by SAFETEA-LU (Fiscal Years 2006 through 2009).

Scope

Highly focused research objectives in four specific areas: Capacity, Reliability, Safety, and Renewal.

Governance

Oversight Committee to be appointed by NAS

Funding

Authorized at \$51.25 million annually for 4 years

Status

- Interim Director and Deputy Director (Neil Hawks and Ann Brach) were named by TRB in November 2005.
- Original research plans are being revised, in consultation with original panel chairs, members, and principal investigators and with the USDOT.
- Memorandum Agreement will be executed in January 2006
- Oversight Committee will be appointed and meet January 5 and 6, 2006, when it will decide on a revised program to match the reduced time and budget.
- Funding for SHRP II will be provided by FHWA following FY 2006 appropriations.

Airport Cooperative Research Program (ACRP)

Authorization

ACRP was authorized at \$10 million annually (Fiscal Years 2004 through 2007) in the Vision 100 Act (December 2003).

Scope

Applied research on problems that are shared by airport operating agencies and are not being adequately addressed by existing federal research programs.

Governance

An independent governing board — ACRP Oversight Committee (AOC) — appointed by the Secretary of the U.S. DOT

Funding

\$3 million provided to TRB in FY 2005
\$10 million appropriated in FY 2006

Status

- In October 2005, a Memorandum of Agreement was executed, AOC members were appointed, and FY 2005 funds were provided to TRB.
- The AOC will meet on January 30 and 31 to agree on operating procedures and to select research for the first ACRP program year.

National Cooperative Freight Transportation Research Program (FCRP)

Authorization

This new program was authorized by SAFETEA-LU (Fiscal Years 2006 through 2009).

Scope

Freight issues in all modes of transportation; a national research agenda and a multi-year strategic plan will be developed. Example areas: public benefits, traffic, international trade, planning, infrastructure.

Governance

Advisory Committee – freight stakeholders (public, private,

academic) to be selected and appointed by TRB/NAS

Funding

Authorized at \$3.75 million annually for 4 years

Status

- TRB staff have had preliminary talks with representatives of FHWA and the (U.S. DOT) Secretary's Office. An agreement with U.S. DOT will follow FY 2006 appropriations.

Hazardous Material Research Projects (HMCRP)

Authorization

This new initiative was authorized by SAFETEA-LU (Fiscal Years 2006 through 2009).

Scope

Carry out 9 projects identified in TRB Special Report 283.

Governance

SAFETEA-LU is silent on governance. TRB will appoint panels to provide guidance on the projects.

Funding

Authorized at \$1.25 million annually for 4 years

Status

- TRB staff have had preliminary discussions with representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA). An agreement with PHMSA will follow FY 2006 appropriations.

Synthesis Studies

Under the sponsorship of the National Cooperative Highway Research Program (NCHRP) and the Transit Cooperative Research Program (TCRP), TRB prepares syntheses of current practice in the highway and transit fields. These Synthesis Studies report on current knowledge and practice, in a compact format, without the detailed directions usually found in handbooks or design manuals. Additional Information on Synthesis Studies may be found at: <http://www4.nationalacademies.org/trb/synthesis.nsf/>. Submissions of suggested new synthesis topics should be made electronically at this same web address, at "**SUGGEST** an NCHRP or TCRP synthesis topic."

NCHRP Synthesis Studies

In 2005 12 projects were initiated; 12 are programmed for 2006.

Project Submission

Submissions for Synthesis projects can come from any source

Selection Process

The following factors are considered in the selection process for synthesis topics:

- The topic should address a problem that is widespread enough to generate broad interest in the synthesis.
- The topic should be timely and critical.
- The topic is appropriate if current practice is non-uniform or inconsistent from agency to agency, or if the validity of some practices appears to be questionable.
- The quality and quantity of useful available information should indicate a need to organize and compress that which has already been learned and written on the topic.
- The topic should not be one where ongoing research or other activities in progress might be expected to render the synthesis obsolete shortly after completion.

Schedule for FY 2007 Program

- February 10, 2006 - Topic statement submission deadline
- May '06 - Projects selected

- August '06 - First pane meetings

TCRP Synthesis

Six projects were initiated in 2005; six are programmed for 2006.

Project Submission

Submissions for Synthesis projects can come from any source.

Selection Process

The factors considered for the TCRP Synthesis Program are the same as used in the NCHRP Synthesis process.

- The problem should be widespread enough to generate broad interest in the synthesis.
- The problem should be timely and critical with respect to economic impact, safety, or social impact.
- The problem is appropriate if current practice is non-uniform or inconsistent from agency to agency, or if the validity of some practices appears to be questionable.
- The quality and quantity of useful available information should indicate a need to organize and compress that, which has already been learned and written on the topic.
- The topic should not be one where ongoing research or other activities in progress might be expected to render the synthesis obsolete shortly after completion.

Schedule for FY 2007 Program

- March 31, 2006 - Topic statement submission deadline
- May '06 - Projects are selected
- June '06 - Topic panel nomination request issued
- July '06 - Topic panels selected
- August '06 - First topic panel meeting